AMENDMENTS TO THE CLAIMS

1. (Original) A monomeric or multimeric amidase characterized in that the amidase contains an N-terminal sequence **SEQ ID No. 1** or an N-terminal sequence having a homology of greater than 50% with **SEQ ID No. 1**.

2. (Original) A monomeric or multimeric amidase characterized in that the amidase contains a sequence **SEQ ID No. 2** or a sequence having a homology of greater than 50% with **SEQ ID No. 2**.

3. (Previously presented) The monomeric or multimeric amidase as claimed in claim 1, characterized in that the amidase contains an N-terminal sequence **SEQ ID No. 1** and **SEQ ID No. 2** or an N-terminal sequence having a homology of greater than 50% with **SEQ ID No. 1** and a sequence having a homology of greater than 50% with **SEQ ID No. 2**.

4. (Previously presented) The amidase as claimed in claim 1 having a molecular weight of the native monomeric enzyme between 47 and 53 kDa.

5. (Previously presented) The amidase as claimed in claim 1, characterized in that the enzyme is obtainable from thermophilic bacteria.

6. (Previously presented) The amidase as claimed in claim 1, characterized in that the enzyme is obtainable from Actinomycetes.

7. (Previously presented) The amidase as claimed in claim 1, characterized in that the enzyme is obtainable from *Pseudonocardia thermophila.*

8. (Previously presented) The amidase as claimed in claim 1, obtainable by a method comprising the method steps

a) centrifugation of the cell-free crude extract of a thermophilic bacterium at 10 000 to 20 000 rpm and subsequent addition of a 1 M salt solution,

b) chromatographic separation of the supernatant on a hydrophobic column using a reverse

gradient of a salt solution from 1 M to 0 M,

c) ultrafiltration of the fraction showing amidase activity obtained from b) on a 10 kDa cut-off membrane,

d) ion-exchange chromatography of the protein fraction obtained from c) using a gradient from 0 M to 0.5 M of a salt solution, and

e) chromatography of the fraction showing amidase activity obtained from d) using a 100 to 200 mM salt solution and desalting the purified amidase fraction.

9. (Previously presented) The amidase as claimed in claim 1, characterized in that the N-terminal end of the amidase containing the **SEQ ID No. 1** or a sequence having a homology of greater than 50% with **SEQ ID No. 1** is completely or partly deleted.

10. (Previously presented) The amidase as claimed in claim 2, characterized in that the **SEQ ID No. 2** or a sequence having a homology of greater than 50% with **SEQ ID No. 2** of the amidase is completely or partly deleted.

11. (Previously presented) The amidase as claimed in claim 1, characterized in that the enzyme is present as monomer or dimer, consisting of two monomeric amidase units.

12. (Previously presented) The amidase as claimed in claim 1, characterized in that the enzyme has an amino acid sequence according to **SEQ ID No. 3** or an amino acid sequence having a homology of at least 50% therewith.

13. (Previously presented) A nucleic acid coding for an inventive amidase as claimed in claim 1, characterized in that the nucleic acid has a sequence according to **SEQ ID No. 4** or a nucleotide sequence having a homology of greater than 60% therewith.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Previously presented) A method for the enzymatically catalyzed hydrolysis of amides, characterized in that the reaction is catalyzed by an amidase as claimed in claim 1.

19. (Original) The method as claimed in claim 18, characterized in that the reaction is carried out at a temperature between 30°C and 85°C.

20. (Original) The method as claimed in claim 19, characterized in that the reaction is carried out at a temperature between 50°C and 75°C.

21. (Previously presented) The method as claimed in claim 18, characterized in that the reaction proceeds at a pH between 3.5 and 11.5.

22. (Previously presented) A method of hydrolysis of amides or of acylation comprising contacting the amidase as claimed in claim 1 with an amide.

23. (Currently amended) The method as claimed in claim ~~22~~ 18 wherein the amides subject to hydrolysis are selected from the group consisting of aliphatic amides, aromatic amides, cyclic amides, heterocyclic amides and amino acid amides.

24. (Previously presented) The method as claimed in claim 23 wherein the hydrolysis is enantioselective hydrolysis.

25. (Previously presented) The method as claimed in claim 24 wherein *S*-stereoisomeric acids are produced.